

What is claimed is:

5 1. A method for repairing a portion of a structure, comprising:  
orienting a multi-axis digital measuring device;  
measuring at least a portion of the structure with the device;  
saving data generated in measuring the structure; and  
using said data to automatically manufacture a repair part.

10 2. The method of Claim 1, further comprising adding additional data for  
use in automatically manufacturing the repair part.

3. The method of Claim 1, further comprising planning a process to  
manufacture the repair part.

15 4. The method of Claim 1, further comprising installing the repair part.

20 5. The method of Claim 1, further comprising orienting the device with  
respect to the structure via an orienting feature selected from the group  
consisting of plumb lines, orientation holes, a feature of the structure and a  
feature of the portion.

6. The method of Claim 1, further comprising mounting a mounting  
bracket for the multi-axis device on the structure.

25 7. The method of Claim 1, wherein automatically manufacturing  
comprises a multi-step process for material removal and material shaping.

8. The method of Claim 1, further comprising transferring the repair  
part from a first workstation to a second workstation.

30 9. The method of Claim 1, further comprising translating the data from  
a first format to a second format.

10. The method of Claim 1, further comprising a data manipulation step selected from the group consisting of exporting data, importing data, verifying data, and transferring data.

5 11. The method of Claim 1, further comprising mounting a laser-scanning device.

12. A method for repairing a sheetmetal portion of a structure, comprising:

10 orienting a multi-axis digital measuring device;  
measuring at least a portion of the structure with the device;  
saving data generated in measuring the structure; and  
using said data to automatically manufacture a sheetmetal repair part.

15 13. The method of Claim 12, further comprising adding additional data for use in automatically manufacturing the sheetmetal repair part.

14. The method of Claim 12, further comprising planning a process to manufacture the repair part.

20 15. The method of Claim 12, further comprising installing the repair part.

25 16. The method of Claim 12, further comprising orienting the device with respect to the structure via an orienting feature selected from the group consisting of plumb lines, orientation holes, a feature of the structure and a feature of the portion.

30 17. The method of Claim 12, further comprising mounting a mounting bracket for the multi-axis device on the structure.

18. The method of Claim 12, wherein automatically manufacturing comprises a multi-step process for material removal and material shaping.

19. The method of Claim 12, further comprising transferring the sheetmetal repair part from a first workstation to a second workstation.

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20. The method of Claim 12, further comprising a data manipulation step selected from the group consisting of exporting data, importing data, verifying data, and transferring data.

21. The method of Claim 12, further comprising translating the data from a first format to a second format.

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22. The method of Claim 12, further comprising mounting a laser-scanning device.

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